Center Innovation Fund: JSC CIF

Simulated Variable Inertia for Exercise Equipment

Completed Technology Project (2012 - 2012)

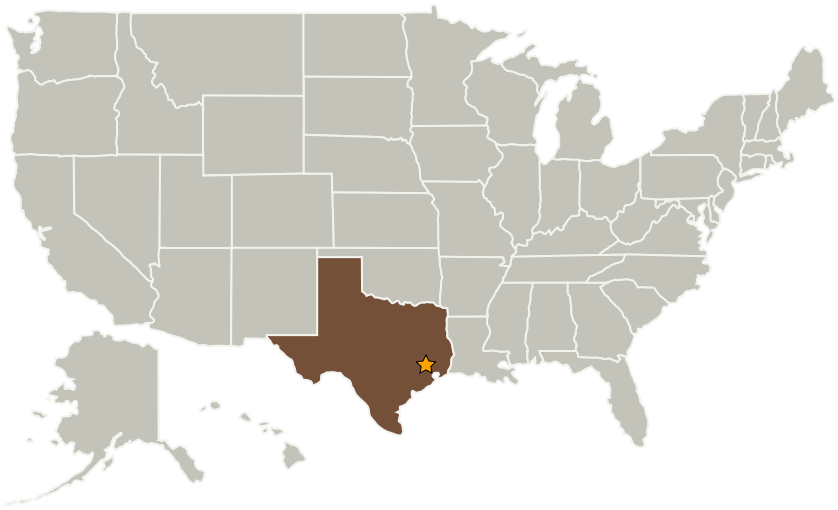
Project Introduction

Exercise equipment for on-orbit or very low gravity use has been developed using springs or motors to provide a constant force for resistive exercise. These systems do not, however, fully mimic the free-weight ground equipment that they are replacing as they do not have inertia. It is the intent of this project to produce a prototype variable inertia device which can be integrated with resistive equipment in development to produce the 'missing' inertia component.

Anticipated Benefits

N/A

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Jacobs Engineering Group, Inc.	Supporting Organization	Industry	Dallas, Texas

Project Image Simulated Variable Inertia for Exercise Equipment

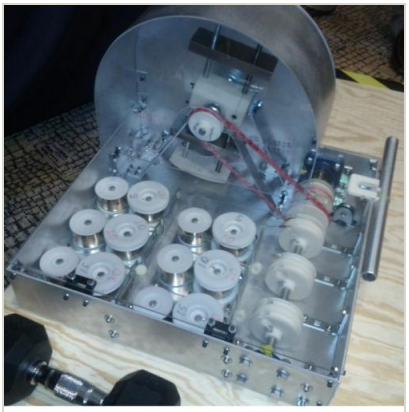
Table of Contents

Simulated Variable Inertia for Exercise Equipment

Completed Technology Project (2012 - 2012)

Primary U.S. Work Locations
Texas

Images



12437-1379531274175.jpg
Project Image Simulated Variable Inertia for Exercise Equipment
(https://techport.nasa.gov/image/2302)

Organizational Responsibility

Responsible Mission Directorate:
Space Technology Mission Directorate (STMD)

Lead Center / Facility:
Johnson Space Center (JSC)

Responsible Program:
Center Innovation Fund: JSC CIF

Project Management

Program Director:
Michael R Lapointe

Program Manager:
Carlos H Westhelle

Project Manager:
Jesse I Craft

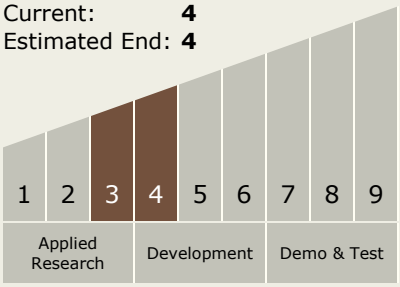
Principal Investigator:
Jesse I Craft

Simulated Variable Inertia for Exercise Equipment

Completed Technology Project (2012 - 2012)

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - TX06.2 Extravehicular Activity Systems
    - TX06.2.4 Decompression Sickness Mitigation